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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/561,326

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Kenji Okada

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757 7590 04/07/2009  
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EXAMINER

LENIHAN, JEFFREY S

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

04/07/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/561,326	<b>Applicant(s)</b> OKADA ET AL.	
	<b>Examiner</b> Jeffrey Lenihan	<b>Art Unit</b> 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/04/2008</u>  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

1. This Office Action is responsive to the amendment filed on 12/19/2008.
2. The objections and rejections not addressed below are deemed withdrawn.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office Action.

***Claim Rejections - 35 USC § 103***

4. Claims 1-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al, WO99/43719 (of record), in view of Buhno et al, JP 08-003412 (of record). Nakagawa et al, US6964999, (Nakagawa '999) is utilized as an equivalent English translation of WO 99/43719.

The rejection stands as per the reasons outlined in the previous Office Action, incorporated herein by reference.

5. Claims 1-24 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa et al, WO 99/65963 (of record), in view of Buhno et al, JP 08-003412 (of record). Nakagawa et al, US6979716 (Nakagawa '716), is utilized as an equivalent English translation of WO 99/65963.

The rejection stands as per the reasons outlined in the previous Office Action, incorporated herein by reference.

***Response to Arguments***

6. Applicant's arguments filed 12/19/2008 have been fully considered but they are not persuasive

7. As discussed in the previous Office Action, both Nakagawa '999 and Nakagawa '716 disclose curable compositions comprising a vinyl polymer having at least one terminal group corresponding to the claimed formula (1). Applicant argues that there would be no motivation to modify either Nakagawa reference, as both references state their respective compositions do "not necessarily require the addition of an antioxidant."

8. As noted both in the previous Office Action (¶7, 12) and quoted by applicant in the remarks filed on 12/19/2008 (Page 3, line 20 to Page 4, line 1), both Nakagawa '999 and Nakagawa '716 state that "if desired, the conventional antioxidants and ultraviolet absorbers can be selectively added" to the disclosed compositions. Disclosed examples and preferred embodiments do not constitute a teaching away from a broader disclosure or nonpreferred embodiments (MPEP § 2123 [R-5]). Both Nakagawa '999 and Nakagawa '716 clearly teach that conventional antioxidants may be added as an optional ingredient, and therefore expressly envision compositions containing known antioxidants as alternative embodiments. As noted in the previous Office Action, Buhno teaches that the use of a monoacrylate phenolic compound as an antioxidant for polymer compositions was known in the art at the time the invention was made. The examiner therefore maintains the position that, barring a showing of factual evidence demonstrating unexpected results, it would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made to modify the composition of

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either Nakagawa '999 or Nakagawa '716 via the addition of a known monoacrylate phenolic antioxidant, as taught by Buhno.

9. The examiner further takes the position that the allegedly unexpected results cited by applicant are not commensurate in scope with the claims as currently written. Examples 1 and 2 in the submitted specification recite compositions wherein the vinyl polymer (I) is an acryloyl diterminal 25% n-butyl acrylate/ 46% ethyl acrylate/29% 2-methoxyethyl acrylate copolymer prepared in Production Example 1. Independent claim 1 only requires a vinyl polymer comprising the claimed terminal group, and therefore reads on a polymer prepared from any vinyl monomer. Applicant has not demonstrated that the allegedly unexpected results are obtained using 1) polyolefins, polystyrenes, polymethacrylates, polyvinyl chlorides, etc., all of which are vinyl polymers which have different structures and properties; or 2) any other terminal group wherein  $R^a$  of formula (1) is a  $C_1$ - $C_{20}$  alkyl, as claimed. The examiner further notes that Example 1 recites the addition of 0.3 parts of a monoacrylate phenolic antioxidant to 100 parts of the vinyl polymer (I); Example 2 recites the addition of 0.2 parts of a monoacrylate phenolic antioxidant to 100 parts of the vinyl polymer (I). The instant claims, however, do not recite a ratio at which the two components are mixed. Applicant has not provided evidence that the allegedly unexpected results are obtained when the monoacrylate phenolic antioxidant is added at any ratio other than narrow range of 0.2-0.3 parts per 100 parts of vinyl polymer (I).

***Conclusion***

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey Lenihan whose telephone number is (571)270-5452. The examiner can normally be reached on Monday through Thursday from 7:30-5:00 PM, and on alternate Fridays from 7:30-4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ Irina S. Zemel/  
Primary Examiner, Art Unit 1796

Jeffrey Lenihan  
Examiner, Art Unit 1796

/JL/